



**POLICY AND GUIDELINES PAPER ON
LOW CARBON MOBILITY PLAN AND
SUSTAINABLE PRACTICES IN
UNIVERSITI MALAYSIA
TERENGGANU**

A. Background

Malaysia is a party to the United Nations Framework Convention on Climate Change (UNFCCC). Consonant to the Convention, Malaysia ratified the Kyoto Protocol in 2002 and the Paris Agreement in 2016. Under the Paris Agreement, Malaysia communicated the country's Nationally Determined Contributions (NDC) intending to reduce 45% GDP emissions intensity by 2030 relative to the emissions intensity in base year 2005. This consists of a 35% reduction on an unconditional 2005. This consists of a 35% reduction on an unconditional basis and a further 10% conditional upon receipt for climate finance, technology transfer and capacity building from developed countries.

In 2017, Malaysia's total Final Energy Consumption (FEC) stood at 62,848 ktoe (kilo tonne so foil equivalent), which is 9.8% higher than the previous year. The transport sector was the second fastest growing sector overall in terms of energy consumption with a total FEC of 23,522 ktoe or 37% of the country's total. Within the transportation sector, road transport dominates – accounting for more than 90% of energy consumption. The transportation sector also consistently consumes. The transportation sector also consistently remained the second largest greenhouse gas (GHG) emitting sector, accounting for 20% of Malaysia's total greenhouse gas (GHG) emissions in 2014 of which 18% originated from road transportation (55,366 Gg CO₂eq) (NC3BUR2).

Malaysia is on track to achieve zero net emission by 2050 following the announcement of the National Energy Transition Roadmap (NETR), according to the Energy Industries Council (EIC). The EIC conference in OGA 2023, is all about decarbonising oil and gas which covers on how companies can relook at their operations and come out with the best way to emit less carbon. The EIC regional director for Asia Pacific Azman Nasir said that "Implementation is also key, perhaps a penalty for emitting a certain level of carbon will increase the awareness and push the company to be more proactive as it costs money," he said. (News Straits Time, 14 August, 2023).

In the 12th Malaysia Plan is expected to continue the focus on low carbon transport and cities in line with the Sustainable Development Goals (SDGs) agenda which seeks Malaysia to achieve (Low Carbon Mobility Blueprint 2021-2030, 2021).

Aligned with the Government policy on Zero Emission and Low Carbon Mobility, a special task force called Jawatan Kuasa Citra dan Kelestarian Kampus (JCKK) under Pro Naib Cancellor (Strategic and Performance) was assigned to facilitate and propose any sustainable practices that may can improve IU Green Metric. Currently, UMT is ranked 12 out of 42 among the education providers that took part in IU Green Metric 2023. UMT community, staff representatives and student groups have been actively participating in campus bikes, Car Free Day, Electric Scooter in the campus and also UMT has conducted a carbon footprint study within the campus for two weeks study in 2023. These studies enable to understand the motor vehicle trends pattern inbound and outbound trends that lead to estimating the total carbon footprint Estimation in UMT.

Apart from that all Universiti Malaysia Terengganu sites are cyclist and pedestrian friendly. Many have vehicle-free paths for these users. All sites have cycle racks in a variety of designs and the university provides electric scooter in the campus is among the activities that currently support for the zero emission in the campus. Hence but not limit to this, the following guideline or policy paper for the **Low Carbon Mobility Plan (LCMP) and Sustainable Practices and Activities** is meant for a sustainable green practice and controlling of usage of motor vehicles entering the university.

B. Scope

LCMP UMT practices apply to any activities that will reduce the accumulation of emission generated from activities on land and above sea (road transport and including boats, vessels) during procurement (contractors) and by university staff and students' usage of motor vehicles. Taking into some best practices by The MIT Massachusetts Institute of Technology, Massachusetts, USA the campus climate action commitments can be broadly broken into three areas of focus: mitigation, resiliency, and leadership. Below is the area of focus area by UMT;

Mitigation efforts centre on developing a full assessment of direct and indirect emissions resulting from the diverse operations of the institute and the undertaking of strategic measures to continually reduce and ultimately eliminate these emissions.

Resiliency is the work needed to support and build an UMT that continues to fulfill its mission in the face of the impacts of climate change that include flooding from more

frequent and extreme rains, storm surges, and rising sea-levels as well as extreme heat events.

Climate leadership focuses on work UMT is doing to expand campus climate action by setting new goals and empowering the UMT community to develop ideas, strategies, and metrics to reach those goals. The UMT campus will continue to be a “test bed for change” as we navigate a path towards net-zero creating a mission driven approach to solving for climate change.

The UMT community, including students, faculty, staffs, service agencies and external parties shall abide by the prohibitions stated in the guidelines. The public and university guests are also enjoined to abide by this policy upon entering the university premises and participating in any university activities. Exceptions due to research activities, special events, etc may be granted on case-to-case basis subject to approval of university management council.

C. Terminology

C1. Zero Emission: *Zero emission* refers to an engine, motor, process, or other energy source, that emits no waste products that pollute the environment or disrupt the climate.

C2. Low Carbon Mobility Plan (LCMB): The aim of Low Carbon Mobility Plan (LCMP) is to develop a long-term vision for desirable accessibility and mobility pattern for people, and movement of goods in the cities. (UNEP, 2016)

C3. Carbon Foot Print: A carbon footprint is the total amount of greenhouse gases (including carbon dioxide and methane) that are generated by our actions. The average carbon footprint for a person in the United States is 16 tons, one of the highest rates in the world. Globally, the average carbon footprint is closer to 4 tons.

C4. Land Transport: Railways, roads, bridges, pipelines, tunnels, and seaports are types of land transportation. Road transport and railways are the most used modes of land transportation today.

C5. Sea Transport: Maritime transport (or ocean transport) or more generally waterborne transport, is the transport of people (passengers) or goods (cargo) via waterways. Freight transport by sea has been widely used throughout recorded history.

C6. Air Transport: Air transport is that which transports by air, by means of aircraft, airplanes, etc. Allows the movement of people, goods, and mail. Aircraft are the fastest

means of transportation and therefore the most suitable for shipping products within the supply chain that require fast and agile delivery.

C7. Traffic Survey: Traffic surveys aim to capture data that accurately reflects the real-world traffic situation in the area. It may be counting the number of vehicles using a road or collecting journey time information for example, but there are many other types of data that traffic surveys collect.

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C9. Net Zero: Net zero refers to a state in which the greenhouse gases produced in the atmosphere are balanced by removal out of the atmosphere.

D. Preparations, implementation, enforcement and alternatives

I. Preparation: Dissemination of info/ Education

PPL and all agencies in UMT shall initiate the information, education and communication to UMT community. The campaign shall include the activities to educate the community to care for the environment, to promote zero-emission practices and to explain the potential hazards from the air pollutants emitted from motor vehicles.

II. Implementation

Special Task Force committee shall be formed to coordinate the overall campaign, monitor and ensure enforcement of the policy. The policy cover administrators, faculty, non-academic staffs, service providers, members of the public, contractors and other university guests. The campaign materials shall include signage, infographics and social media outlets approved by the university low carbon mobility mission or related agency.

III. Recommendations

1. A baseline visits to most successful campus to learn more how this university success and promotes sustainability among their community.
2. Introducing Park-and-Ride program in UMT among students.
3. Introducing a bus ride or free bus/coach for the student's initiatives.
4. Initiating activities such as seminar, webinar, campaign, digital materials and media to promote the knowledge and awareness.

E. Relevant committee and their responsibilities

- I. **Special Task Force** shall coordinate the campaign, monitor the implementation and ensure the enforcement of the policy.
- II. **Pusat Pembanguna Harta (PPH)** shall ensure the facility needed to support the sustainable green practices and water dispenser are available. PPH shall ensure the maintenance of such facility by employing contractors, etc.
- III. **Pusat Komunikasi Korporat (PKK)** shall be responsible for dissemination of information, education and communication campaign with rationale of Low Carbon Mobility to mitigate carbon and other pollutants in the campus.
- IV. **Pejabat Pendaftar and Pejabat Bendahari** commitment to introduce and applies zero carbon mobility from procurement processes.
- V. **UMT staffs** are required to cooperate and help educate and promote low carbon mobility and zero emission principles to students and fellow colleagues.
- VI. **Students, alumni, guests, cafeteria owners** via student's societies shall abide by the guidelines.
- VII. **Bahagian Keselamatan** shall enforce the policy in campuses and issues warnings/penalty for any reported misconduct.

F. Policy Enforcement

This policy is effective from March 30, 2024.

